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Governor

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Stephen A. Owens
Director

HAZARDOUS AIR POLLUTANTS RULE STAKEHOLDER MEETING SUMMARY

DATE: July 19, 2005
TIME: 9:30 a.m.
LOCATION: ASU Downtown Center, C368-370
502 E. Monroe Street, Phoenix, Arizona

PUBLIC ATTENDEES

(See attached)

ADEQ STAFF

Nancy Wrona
Diane Arnst
Steve Burr
Kevin Force
David Lillie
Corky Martinkovic
Eric Massey

ADDITIONAL ATTENDEES

Kelly Cairo, Gunn Communications
Pat Clymer, Weston Solutions
Theresa Gunn, Gunn Communications
Gary Lage, Weston Solutions
Steve Mauch, Weston Solutions
Teresa Verstraet, Weston Solutions

AGENDA

- Opening Remarks
- Introductions and Meeting Overview
- Presentation of Methodology for Chronic Ambient Air Concentrations
Stakeholder Discussion
- Presentation of Methodology for Acute Ambient Air Concentrations
Stakeholder Discussion
- Next Steps
- Adjourn

OPENING REMARKS

Nancy Wrona thanked attendees for their participation in the Hazardous Air Pollutants (HAPs) rulemaking process. She noted that based on stakeholder input, a meeting in Tucson has been added to the schedule, and the overall schedule has been adjusted to extend into October.

INTRODUCTIONS AND MEETING OVERVIEW

Meeting facilitator Theresa Gunn reviewed guidelines for holding a good meeting and explained that the objective of the meeting was to review and comment on the methodology for chronic and acute air concentrations. Steve Burr added that the methodology would be used to help determine which non-major source categories may have emissions which may be adverse to

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human health and should be listed in the HAPs rule.

Theresa Gunn called for introductions of all attendees. Stakeholder questions and comments included:

- What are the minimum levels of pollutants? *Response:* Levels will not vary by type of pollutant. Facilities emitting 1 ton per year (tpy) of a single HAP or 2.5 tpy of combined HAPs will be affected by this rule.
- Will concentrations be used in looking at which source categories to list? *Response:* Yes.
- Will ADEQ review source categories every year? Every three years? *Response:* There are no plans at this time, but it is likely. If a facility entering Arizona represents a new source category, we would evaluate that category.
- Would a new source (at an existing facility) or the entire facility be subject to the rule? *Response:* Only the modification is subject to this rule.
- Are the categories defined? *Response:* Not at this time. The modeling has not been completed.

PRESENTATION OF METHODOLOGY FOR CHRONIC AMBIENT AIR CONCENTRATIONS

Gary Lage presented the methodology to be used for chronic ambient air concentrations. This presentation will be added to the ADEQ website at www.azdeq.gov/function/laws/draft.html#haps. Highlights of the presentation included:

- The methodology uses a tiered approach.
- Tier 1 uses adjusted EPA Integrated Risk Information System (IRIS) values to reflect a 30-year residential exposure.
- When a value under IRIS is not provided, EPA values set by Region 3 and Region 9 are used to determine Tier 2.
- Tier 3 criteria are based on Agency for Toxic Substances and Disease Registry (ATSDR) minimal risk levels and California EPA values.
- In a situation where no data are available, such as for classes of compounds, a surrogate compound within the class is used to develop a Tier 4 criterion.
- The Weston draft document shows which values were selected and why.
- Figures for human or probable human cancer are used and include one excess cancer in 1 million people per 30-year residential exposure.

Stakeholder questions and comments included:

- If PRGs (Region 9) are for remediation, this would be for water/soil. How can it be ambient air-based? *Response:* The term remediation is something of a misnomer. Region 9 prepared information comparable to that of Region 3. In doing so, the term remediation was used but the values are for ambient air emissions.
- People are not exposed to just one chemical and risk assessments should take into consideration cumulative exposures. *Response:* This is addressed by using a decision point for carcinogens of 10^{-6} . If there were 10 facilities at this risk level, the combined risk would be 10^{-5} , which is considered acceptable. Non-carcinogens have a level of conservativeness built in. In an ideal world ADEQ could evaluate chemicals as suggested. However, ADEQ is doing this risk assessment to determine source

categories – which will result in HAPRACT. In a risk-reduction approach, there is no attempt to assess the risk from individual chemicals, let alone combinations. This is the program set out in statute. Control technologies do not just reduce for a specific HAP, but have extended benefits.

- The concept of acceptable risk to a regulatory agency is not acceptable to people. People tell me about illnesses and their hair falling out. *Response:* Risk assessments are done in a very conservative manner.
- The rule may become a civil rights violation. *Response:* The science behind the regulation would not support this statement.
- Why don't all EPA regions have standards? *Response:* We don't know. However, Region 3 looked to shorten the process of determining risk assessment and uses these concentrations as screening levels.
- The labeling format is not consistent in comparing the tables in the chronic and acute reports. *Response:* Weston will provide a conversion.
- Will industrial facilities that emit HAPs be regulated independently or as a group? *Response:* Facilities will be regulated on a source-by-source basis by imposing control technology. ADEQ is also considering cumulative effects outside of this rule process.
- Will chronic and acute ambient air criteria be updated every year? Will these be adopted as policy? *Response:* HAPRACT will not be established by rule. It could be established in a general permit, or guidance could be developed. HAPRACT will be determined on a case-by-case basis.
- If a case-by-case process is used, cumulative impacts could be considered. *Response:* This is a control technology program, not a risk-based approach.
- Metals, for example, are listed as compounds. Could these be broken down? *Response:* They could be, however, the most conservative levels were used and that information is shown in the footnotes. This is generally the approach taken in the IRIS database as well.
- Will Weston's health effects concentrations become the director's finding of "adverse effects to human health" required by §426.05? *Response:* Yes, but in combination with modeling concentrations.
- Will you revise the table to add a column that lists the health effect relied upon for each chemical? *Response:* If the end point is cancer, it is listed. It is possible to provide information on the target organ for non-cancerous chemicals, because most are available through IRIS documentation.
- Could you list which organ is affected? *Response:* This information is available through IRIS. Due to agency resources, it is suggested that the regulatory community access this information through the IRIS database.
- The statute uses "increased mortality" and other similar terms. *Response:* We considered this issue regarding the acute criteria. "Chronic toxicity" is specifically listed as an example of an adverse health effect.

Gunn asked the group if they would like to see a revised table listing health effects for each chemical. Nearly all indicated that they did not need this information.

Other issues identified by stakeholders:

- Is the same 1/6 ratio for Cr VI used in acute table that was in chronic?

- Title VI/Civil Rights cumulative impacts and effects.
- Risk assessment needs a reality check – why do people complain of health effects when there is “no risk?”
- Need by rule to prevent clustering of major HAPs sources.
- How do levels for classes of compounds apply to individual chemicals? Is it assumed that individual chemicals in a category are the same?
- How will HAPRACT compare to the federal MACT standard for those businesses who happen to be in a MACT and HAPRACT category?
- Will chronic and acute ambient air criteria be updated every year? Will these be adopted as policy?
- Why can’t cumulative impacts be evaluated in HAPRACT determinations?
- Risk management analysis – how extensive is it going to be?

Gunn asked the group if they had any concerns about the tiered approach. Comments and questions included:

- It is logical.
- Does it meet statutory criteria? *Response:* Yes, we think so.
- What alternate methodologies were considered? *Response:* None, due to the nature of the task. A chemical-by-chemical approach is a possibility, but this would be a massive task.
- The IRIS/carcinogens list uses unit risk factor URF and the adjusted URF column can’t be directly compared.
- Can you please compare new proposed levels with the current AAAQG levels? *Response:* For the purposes of the stakeholder meeting, the agency would like this process to be considered as a blank slate without looking at past efforts.
- Is there a cross-check with other states for values? *Response:* We have not done this. Other states may use different risk values and exposures. Also, other states would likely use this information as a means of compliance, whereas Arizona will use the information to determine whether controls should be applied, and subject to HAPRACT.
- When will Weston identify ambient concentrations resulting from source emissions? *Response:* At an upcoming meeting.
- The approach is logical, but I can’t comment on it until I review the statute. We may have comments on a chemical-by-chemical basis.
- Are the concentrations going to be used in any way other than to define source categories? *Response:* The concentrations will be used for defining source categories and potentially for determining de minimis amounts.
- How conservative is the compound approach to metals, in particular? *Response:* Probably not all metals have been studied. Once a source is subject to the program, we can do a risk-based assessment.
- Could we request to be exempted out once a chemical in the compound list is identified as non-toxic? *Response:* If the source was still in the source category, we could use a risk management approach and simple analysis to show that a facility is emitting a compound with less toxicity than the one ADEQ evaluated to list the source category.
- What about a source (in a rural area) where there is nothing and no one around? *Response:* The risk management approach allows for this exemption. The agency has a

long-standing policy of protecting ambient air quality regardless of the surrounding population.

- Does the statute require BACT or RACT for non-major sources? *Response:* RACT.
- Will consideration be given as to how a particular source in a category is used? (E.g. emergency generator.) *Response:* Yes.
- Add meeting to discuss risk management plan. *Response:* ADEQ will consider this request.

PRESENTATION OF METHODOLOGY FOR ACUTE AMBIENT AIR CONCENTRATIONS

Gary Lage presented the methodology to be used for acute ambient air concentrations. This presentation will be added to the ADEQ website at www.azdeq.gov/function/laws/draft.html#haps.

Highlights of the presentation included:

- This methodology also uses a tiered approach.
- Tier 1 uses EPA's Acute Exposure Guideline Levels (AEGLs), which is also tiered. The 4-hour exposure duration was used.
- Tier 2 uses American Industrial Hygiene Association's Emergency Response Planning Guidelines. These are peer-reviewed values and are also tiered. The 1-hour exposure values were adjusted to make them comparable to the 4-hour AEGLs.
- Tier 3 criteria use Department of Energy Temporary Emergency Exposure Limits. These values are also tiered and the 1-hour exposure values were adjusted to make them comparable to the 4-hour AEGLs.
- In a situation where no data are available, a surrogate approach was used as Tier 4 criteria.
- Values are listed in whole numbers because they are roughly five times larger than chronic exposure levels.
- Both the chronic and acute values are listed in the acute table.

Stakeholder questions and comments included:

- How does the 4-hour value compare to the 24-hour exposure? Most ambient sampling is over a 24-hour period. *Response:* ADEQ considered this; however, there aren't any good 24-hour databases out there.
- So it's okay if people get injured as long as they get well? *Response:* The definitions we use come from statute. Also, chronic exposure data will likely cover 99 percent of the source categories to be listed.
- Can you check on the Cr VI value? *Response:* Yes.
- How would the agency like to receive additional comments outside of these meetings? *Response:* Send written comments to the agency, electronically if possible, since the comments will be posted on the Website. Any additional questions or comments should be addressed to Steve Burr.
- The compounds on the Tier 3 chronic information are not shown. Are they health-based? *Response:* Yes.
- I recommend updating the chronic list annually. The acute list could be updated less often.

Gunn asked the attendees if the acute methodology was appropriate. Comments and questions included:

- The Tier 1 values come from EPA descriptions, which is very close to statutory language.
- I understand the methodology, but want to discuss it with others.
- How will this be used to set a regulation, and how will we be regulated? *Response:* Rule language will consider how ADEQ established HAPRACT requirements.
- I am interested in the de minimis discussion.
- How are sensitive populations protected? *Response:* The reference concentrations are designed to protect sensitive populations.
- What about other factors such as the number of persons likely to be exposed, HAPS that exceed the threshold, a category limited by a geographic area, and defining source categories only for this subsection? *Response:* We are attempting to address these factors in modeling.
- Statutorily, counties are mandated to adopt these programs, so there will be a need for clear guidance to the counties.

NEXT STEPS

Gunn noted that the modeling information, which will be discussed at the next meeting on August 10, is currently available on the Web site. In addition, the presentations from today's meeting will be available on the site soon.

She thanked Richard Grimaldi for his assistance in coordinating the upcoming meeting on July 26th in Tucson. This meeting will cover the same topics addressed at the June 29th meeting in Phoenix.

ACTION ITEMS

- ADEQ staff to add Chronic and Acute presentations to website.
- Gary Lage to review tables in differing documents for consistency in labeling notation.
- ADEQ staff to discuss adding a meeting regarding risk management.
- Gary Lage to review Cr VI value in acute table.

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July 19, 2005

PUBLIC ATTENDEES

Bert Acken, Lewis & Roca
Sandy Bahr, Sierra Club Grand Canyon
Chapter
Ed Barry, Chemical Lime
Ann Becker, Pinnacle West Capital Corp.
Chuck Bischoff, Jordan Bischoff McGuire
& Hiser
Steve Branoff, ENVIRON
Vince Brindley, El Paso Corp.
Steve Brittle, Don't Waste Arizona, Inc.
Dan Casiraro, SRP
Jo Crumbaker, Maricopa County Air
Quality Dept.
Susan Culp, Arizona League of
Conservation Voters
Stan Curry, Gallagher & Kennedy
Tamara Dawes
Phillip F. Fargotstein, Fennemore Craig PC
Joe Gibbs, City of Phoenix
Richard Grimaldi, Pima County DEQ

Larry Hawke, Pima County DEQ
Sharyn M. Holden, Raytheon Missile
Systems
Johanna M. Kuspert, Maricopa County Air
Quality Dept.
Rollie Leeman, Intel
Wayne Leipold, Phelps Dodge Miami
Brett Lindsay, Phoenix Cement Co.
Jeremy A. Lite, Quarles & Brady Streich
Lang LLP
Eran Mahrer, APS/PNW
C. V. Mathai, APS
Jenn McCall, Freescale Semiconductor
Joe Mikitish, Attorney General's Office
Jim Mikula, APS
Pam Norris, SCA Tissue
Brian O'Donnell, Southwest Gas
James Tunnell, AZ Assoc. of Industries
Anne Marie Wolfe, SERI
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